



# UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE  
United States Patent and Trademark Office  
Address: COMMISSIONER FOR PATENTS  
P.O. Box 1450  
Alexandria, Virginia 22313-1450  
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/631,292	07/31/2003	Cheng Tung Cheng	CTCU001	2634

7590 02/02/2004  
Elizabeth Chien-Hale  
Suite 500  
3031 Tisch Way  
San Jose, CA 95128

EXAMINER

EVANISKO, LESLIE J

ART UNIT PAPER NUMBER

2854

DATE MAILED: 02/02/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

## Office Action Summary

Application No.

10/631,292

Applicant(s)

CHENG ET AL.

Examiner

Leslie J. Evanisko

Art Unit

2854

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

### Status

- 1) ☒ Responsive to communication(s) filed on 31 July 2003.
- 2a) ☐ This action is FINAL. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

### Disposition of Claims

- 4) ☒ Claim(s) 1-20 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☒ Claim(s) 1-17 is/are allowed.
- 6) ☒ Claim(s) 18 and 20 is/are rejected.
- 7) ☒ Claim(s) 19 is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 31 July 2003 is/are: a) ☐ accepted or b) ☒ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

### Priority under 35 U.S.C. §§ 119 and 120

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
  - ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- \* See the attached detailed Office action for a list of the certified copies not received.
- 13) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application) since a specific reference was included in the first sentence of the specification or in an Application Data Sheet. 37 CFR 1.78.
- a) ☐ The translation of the foreign language provisional application has been received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121 since a specific reference was included in the first sentence of the specification or in an Application Data Sheet. 37 CFR 1.78.

### Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449) Paper No(s) \_\_\_\_\_
- 4) ☐ Interview Summary (PTO-413) Paper No(s). \_\_\_\_\_
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: \_\_\_\_\_

## **DETAILED ACTION**

### ***Drawings***

1. The drawings are objected to as failing to comply with 37 CFR 1.84(p)(5) because they include the following reference sign(s) not mentioned in the description: reference numeral **160** in Figure 1; and reference numerals **160**, **170** in Figure 6.

A proposed drawing correction, corrected drawings, or amendment to the specification to add the reference sign(s) in the description, are required in reply to the Office action to avoid abandonment of the application. The objection to the drawings will not be held in abeyance.

2. The drawings are objected to under 37 CFR 1.83(a). The drawings must show every feature of the invention specified in the claims. Therefore, the trackball in claims 7, 14, and 20 must be shown or the feature(s) canceled from the claim(s). No new matter should be entered.

A proposed drawing correction or corrected drawings are required in reply to the Office action to avoid abandonment of the application. The objection to the drawings will not be held in abeyance.

***Claim Rejections - 35 USC § 102***

3. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

4. Claims 18 and 20 are rejected under 35 U.S.C. 102(b) as being anticipated by Rakoski (US 6,088,022). Rakoski teaches a method for a keyboard assembly comprising forming a base **14** for the keyboard assembly, disposing on top of the base a non-linear surface **12** consisting of at least two portions **72** (col. 7, lines 35-57), the surface broadly “enclosing” the top of the base as recited, and mounting a plurality of typing keys **74** on the non-linear surface, wherein the alphabetical keys among the plurality of keys are roughly divided between the at least two portions of the surface and wherein the alphabetical keys are positioned asymmetrically. See Figures 5 and 7 in particular, which shows the asymmetrical key positioning of the alphabetical keys. It is noted that the current claim language is very broad in that applicant has not specified how the keys are asymmetrically positioned (i.e., relative to each other, relative to a particular axis of the keyboard, relative to the position of the user, etc.).

With respect to claim 20, note the keyboard assembly of Rakoski includes a trackball **56** as described in column 6, lines 48-54.

***Allowable Subject Matter***

5. Claims 1-17 are allowed.
6. Claim 19 is objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.
7. The following is a statement of reasons for the indication of allowable subject matter:

With respect to claim 1, the prior art of record fails to teach or fairly suggest an asymmetrical keyboard assembly comprising all of the structure as recited, in combination with and particularly including, the two asymmetrical convexly curved portions being arranged above the longitudinal axis such that *a first radial distance from a center point on the longitudinal axis to a point on the first asymmetrical portion is greater than a second radial distance from the center point on the longitudinal axis to a point on the second asymmetrical portion.*

With respect to claim 10, the prior art of record fails to teach or fairly suggest an asymmetrical keyboard assembly including all of the structure as recited, in combination with and particularly including, the longitudinal axis as defined and the plurality of rows of keys being positioned on the substantially

semispherical convex surface such that a first group of keys and a second group of keys are *placed on opposite sides of the longitudinal axis and not equidistant from a user*.

With respect to claim 19, the prior art of record fails to teach or fairly suggest a method for a keyboard assembly including all of the method steps as recited, in combination with and particularly including, the at least two portions of the non-linear surface are *asymmetrical* portions. This language is understood by the Examiner to mean that the at least two portions of the surface are not symmetrical with respect to one another.

### ***Conclusion***

8. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. Malt (US 4,244,659), Robinson (US 5,941,648), Danziger (US 5,426,449), Anderson (US 2002/0158845 A1), and Te Maarssen et al. (US 2003/0026066 A1) each show a keyboard assembly or method having obvious similarities to the claimed subject matter, though none of the references teach the specific claimed keyboard assembly or method as set forth in the claims indicated allowable in the above reasons for allowance.

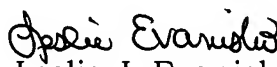
9. Any inquiry concerning this communication or earlier communications from the examiner should be directed to **Leslie J. Evanisko** whose telephone

Art Unit: 2854

number is **(703) 308-0786**. The examiner can normally be reached on M-Th 7:30 am-6:00 pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Andrew H. Hirshfeld can be reached on (703) 305-6619. The fax phone number for the organization where this application or proceeding is assigned is (703) 872-9306.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (703) 308-0956.

  
Leslie J. Evanisko  
Primary Examiner  
Art Unit 2854

lje  
January 25, 2004